entered by Amdt C

IN THE CLAIMS

Claim 18, line 2, delete "is planed or".

Sub A1 G1 --26. (Amended) A device for processing hydrous polymer gel of variable thickness, comprising:

a cutting roll having at least one axially extending cross cutting element including a cutting edge, and a circumferentially extending longitudinal cutting element including another cutting edge;

E3 a back-up roll spaced from said cutting roll so as to form a nip, said back-up roll being mounted relative to said cutting roll such that at least one of said cutting edges cooperates with said back-up roll to cut a hydrous polymer gel at the nip; and

a conveying device driven separately from said cutting roll and arranged to convey a layer of hydrous polymer gel to the nip at a speed less than the rotational speed of said cutting roll.--

REMARKS

Favorable reconsideration of the present application is respectfully requested.

Claims 17-19, 21, 22 and 26-27 remain active in the application.

Claims 17-19 and 26 were rejected under 35 U.S.C. §103 as being obvious over Heywood. Claims 21, 22 and 27 were rejected under 35 U.S.C. §103 as being obvious over Heywood in view of Stream. However, both of these rejections are respectfully traversed.

Briefly, the claims are directed to a device for processing hydrous polymer gel of variable thickness, including a conveying device which is driven separately from a cutting roll and is arranged to convey a layer of hydrous polymer gel to the nip between the cutting roll and the backup roll at a speed less than the rotational speed of the cutting roll. For

example, the conveying device (now numbered 100 in the Figures) conveys the layer 10 of hydrous polymer gels to a nip between the cutting roll 11 and the backup roll 12 in the illustrated embodiment. The conveying device is arranged to convey the layer of hydrous polymer gel at a speed less than the rotational speed of the cutting roll in order to avoid congestion (see last four lines of page 4, and the middle paragraph of page 10 in the specification).

The Examiner has recognized that there is no teaching in Heywood for this feature of the conveying device being driven separately from the cutting roll and being arranged to convey a layer of hydrous polymer gel to the nip at a speed less than the rotational speed of the cutting roll. Instead, the Examiner has taken:

> Official notice that it is old and well known in the art to provide conveyors to move material from one work station... to another by independently driven conveyors to gain the benefits of automated operation... as well as the well known benefits of conveying devices such as efficient and continuous movement of material. As is well known in the art, these conveyors can be driven at any desired speed to provide a desired spacing of the material during the material processing.

The Examiner therefore considers it to have been obvious for one skilled in the art "to provide separately-driven conveyors to feed the material to or from the device of Heywood for the well known benefits including those described above."

However, Applicants respectfully submit that the proper test for obviousness is not whether separately driven conveying devices are known in general. Applicants also respectfully submit that the proper test for obviousness under 35 U.S.C. §103 is not whether it is known, *per se*, that conventional conveyors "can be driven at any speed." Instead, to establish a *prima facie* case of obviousness, the examiner must identify a motivation in the art for those skilled in the art to have modified the machine of Heywood to have included a conveying device driven separately from the cutting roll and arranged to convey the material

of Heywood at a speed less than the rotational speed of the cutting roll. Not only has the Examiner failed to proffer such a motivation (hence, no *prima facie* case of obviousness has been set forth) but such a modification would, in fact, not have been obvious to those skilled in the art at the time of invention.

The machine of Heywood is directed to forming fillers, binders and wrappers of cigars. In Heywood, a common smooth roller C is driven by a driving gear D which engages with a driven gear E for driving the cutting roller F which forms a nip with the common roller C. An endless apron or conveyor L passes around the common roller C, and is evidently driven by the engagement with the common roller C.

The leaves of tobacco are conveyed by the apron L to the nip between the cutting roller F and the common roller C, where they are cut to provide the stock for fillers, binders and wrappers of cigars. For example, the stock for the fillers are cut "at exactly the right length" (right hand column, line 9) by the horizontal blades e of the cutting roller F.

Those skilled in the art would not have been motivated to have driven the conveying device L separately from the cutting roll, both because it would have increased the complexity of the device, and because the resulting alleged "advantage" of being able to drive the conveying device at a speed different from that of the cutting roll would be *unnecessary or undesirable* in Heywood. By driving the tobacco leaves on the apron at the same speed as the cutting roll, the tobacco leaves in Heywood may be cut without wrinkling or shearing in order to provide filler having exactly the right length: since the bottommost leaf in the layer of leaves on the apron is cut after the topmost leaf, a speed differential will tend to shift the layers of leaves as they are being cut. If one were to drive the conveying device of Heywood separately from the cutting roll so as to permit a greater or lesser rotational speed of the conveying device as compared to the cutting roll, the resulting greater or lesser rotational

speed would undesirably produce either wrinkling or shearing in the cut stock, depending upon the speed differential between the conveying device and the cutting roll. Thus, not only is there no motivation taught in Heywood for using an (allegedly known) separately driven conveying device, but Heywood suggests a motivation to *avoid* such a construction -- a teaching *contrary to the claims*.

In summary, Applicants respectfully submit that the Examiner has failed to put forth a prima facie case of obviousness. The Examiner has admitted that the sole reference to Heywood lacks a conveying device that is driven separately from the cutting roll, and so lacks a teaching of conveying a layer of material to a nip at a speed less than a rotational speed of a cutting roll. Moreover, the Examiner has not put forth a motivation for those skilled in the art to have provided such a separately driven conveying device. The Examiner has only noted that separately driven conveying devices, which could be driven at any speed, are known. However, the existence in diverse prior art references of elements of a patent claim is insufficient to establish a *prima facie* case of obviousness, unless it can be demonstrated that those skilled in the art would have been motivated to have modified the primary reference to incorporate the (allegedly) known features. Since it is equally well established that those skilled in the art would not modify a primary reference in a manner contrary to the teachings thereof, the claims clearly define over Heywood.

As for the rejection of Claims 21, 22 and 27 as being obvious over Heywood in view of Stream, it is noted that Stream was directed to the limited feature of coating the back-up roll with plastic, and provides no teaching for overcoming the shortcomings of Heywood with respect to the independent Claim 26.

Concerning the rejection under 35 U.S.C. §112, first paragraph, Applicants respectfully submit that the disclosure as originally filed provided a sufficient description to

permit one skilled in the art to make and use the claimed invention. In particular, the drawings clearly illustrate a conveyor (now to be numbered 100, 102) which conveys the gel strand 10 to a nip between the cutting roller 11 and the back-up roll 12. Moreover, pages 4 and 10 of the specification clearly provide a description that the polymer gel strand is conveyed at a certain conveying rate (e.g., "the rotational speed of the longitudinal cutter is higher than the conveying rate of the polymer gel"). The presence of a conveying device for the gel is therefore clear from the original description. On the other hand, Applicants recognize that the phrase "conveying device" had not been included in the specification, and so this phrase has been introduced at page 8. This amendment to the specification is not believed to constitute new matter since those skilled in the art would clearly have recognized the presence of a conveying device for conveying the gel strand, as set forth above.

As to the rejection under 35 U.S.C. §112, second paragraph, Claim 18 has been amended to delete the alternative limitation. In addition, Claim 26 now recites that the conveying device is "arranged" to convey the gel to a nip, and so structural cooperation is clearly present in the claims. As to the layer of hydrous polymer gel, it is not an element of the claimed combination, and so the layer of hydrous polymer gel referred to in the specification could be any layer at the claimed locations.

In a separate letter, Applicants are requesting the approval of a new Figure 5 which illustrates the depressions recited in Claim 27.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early Notice of Allowability.

Respectfully submitted,

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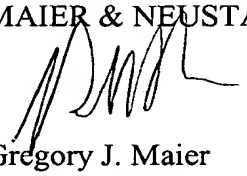

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